



IDAHO POTATOES

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IDAHO RUSSET POTATO SIZE AND GRADE SUMMARY - 2002 CROP

The statistics in this publication were obtained from the 2002 Potato Objective Yield Survey. The Idaho Agricultural Statistics Service would like to thank all growers who allowed the enumerators to dig samples in their fields. Without the voluntary cooperation of the farmers themselves, obtaining valid and timely agricultural statistics would be much more difficult. Because the samples of potatoes were dug by hand, the size and grade statistics in this document do not reflect harvesting or handling damage.

The survey results showed for the 2002 crop, 37.9 percent of the potatoes were at least ten ounces, 1 percent less than the amount that reached that size in 2001. Of the Russet potatoes in the 2002 sample, 67.6 percent met the 2.0 inch or 4 oz. minimum size and grade requirements for U.S. No. 1 potatoes. Processing grade, with a 1.5 inch minimum, accounted for 31.3 percent of the 2002 crop.

PROCEDURE

The 2002 Potato Objective Yield Survey consisted of 292 samples located throughout Idaho in fields selected in an unbiased and random manner. The selection of sample fields was based on all known potato acreage planted in 2002, with each acre having an equal chance of being chosen. As a result, growers with large acreages were more likely to be selected to participate in this survey. Several sample fields with varieties other than russet were selected, but only the reports with Russet potatoes were used to compile the data in Tables 1 and 2. For each sample field, two plots were systematically located using computer generated random numbers. Each plot consisted of a twenty-foot section of a row. Digging of all samples occurred immediately preceding harvest or when all vines had died and growth of the tubers was no longer possible. Three hills of potatoes from each twenty-foot row section were carefully dug, counted, weighed, and then graded according to U.S.D.A. standards. Potatoes less than 1.5 inches in diameter were excluded from this procedure. To measure the harvest loss, post-harvest gleanings were taken for every fourth sample. The gleaning area consisted of two 3-by-6-foot plots, located five paces and five row space equivalents beyond the plots where the potato hills were dug. All potatoes and potato pieces, except whole potatoes under 1.5 inches in diameter, were collected, weighed, and graded. Geographic distribution of the 2002 sample fields is shown in the following table.

<u>AREA</u>	<u>COUNTIES</u>	<u>NO. OF SAMPLE PLOTS</u>
Southwest	Ada, Adams, Boise, Canyon, Elmore, Gem, Owyhee, Payette, Valley & Washington	34
Southcentral	Blaine, Camas, Cassia, Gooding, Jerome, Lincoln, Minidoka & Twin Falls	79
Eastern	Bannock, Bear Lake, Bingham, Bonneville, Franklin, Jefferson, Madison, Oneida & Power	144
Eastern Seed Counties	Butte, Caribou, Clark, Custer, Fremont, Lemhi & Teton	35
IDAHO TOTAL		292

TABLE 1-- IDAHO RUSSET POTATOES: SIZE AND GRADE -- 2002 CROP

AREA AND GRADE	1 1/2" - 1 5/8"	1 5/8" - 1 7/8"	1 7/8" - 2"	2" or 4-6 oz	6-7 oz	7-8 oz	8-9 oz	9-10 oz	10-11 oz	11-12 oz	12-13 oz	13-14 oz	14 oz and over	Total
	Percentages (%)													
SOUTHCENTRAL COUNTIES														
U.S. No. 1 ^{1/}	-	-	-	16.0	7.0	6.9	5.5	4.7	4.5	4.4	3.3	3.6	13.6	69.5
Processing Grade (1 1/2" min.)	1.3	4.2	3.2	3.7	1.5	1.3	1.5	1.3	2.0	1.0	1.1	0.7	6.8	29.6
Other	-	-	-	0.1	-	-	0.2	0.1	-	-	-	0.1	0.4	0.9
TOTAL	1.3	4.2	3.2	19.8	8.5	8.2	7.2	6.1	6.5	5.4	4.4	4.4	20.8	100.0
EASTERN COUNTIES														
U.S. No. 1 ^{1/}	-	-	-	18.1	6.4	6.8	5.9	5.3	4.3	3.6	3.0	2.6	11.7	67.7
Processing Grade (1 1/2" min.)	2.0	5.0	3.6	3.4	1.5	1.5	1.2	1.1	1.3	1.1	0.7	0.9	7.6	30.9
Other	-	0.1	0.1	0.4	0.1	0.2	0.1	0.1	0.1	-	0.1	-	0.1	1.4
TOTAL	2.0	5.1	3.7	21.9	8.0	8.5	7.2	6.5	5.7	4.7	3.8	3.5	19.4	100.0
EASTERN SEED COUNTIES														
U.S. No. 1 ^{1/}	-	-	-	21.3	6.4	6.5	4.5	4.8	2.4	3.6	3.1	2.4	5.8	60.8
Processing Grade (1 1/2" min.)	2.0	6.4	5.0	6.7	1.7	2.1	1.7	1.3	1.3	1.2	1.7	1.3	6.3	38.7
Other	-	-	0.2	0.2	-	-	0.1	-	-	-	-	-	-	0.5
TOTAL	2.0	6.4	5.2	28.2	8.1	8.6	6.3	6.1	3.7	4.8	4.8	3.7	12.1	100.0
TOTAL OTHER COUNTIES														
U.S. No. 1 ^{1/}	-	-	-	17.6	6.6	6.8	5.6	5.0	4.1	3.9	3.1	2.9	11.7	67.3
Processing Grade (1 1/2" min.)	1.7	4.9	3.6	3.9	1.6	1.5	1.3	1.2	1.5	1.1	1.0	0.9	7.2	31.4
Other	-	0.1	0.1	0.3	-	0.1	0.2	0.1	0.1	-	-	0.1	0.2	1.3
TOTAL	1.7	5.0	3.7	21.8	8.2	8.4	7.1	6.3	5.7	5.0	4.1	3.9	19.1	100.0
10 SOUTHWEST COUNTIES														
U.S. No. 1 ^{1/}	-	-	-	17.1	8.0	6.8	5.1	5.0	4.5	3.2	2.6	1.9	8.3	62.5
Processing Grade (1 1/2" min.)	1.3	4.2	3.4	3.9	1.7	2.8	2.8	2.3	1.8	2.1	1.4	1.8	7.5	37.0
Other	0.1	-	-	0.1	-	-	0.1	-	-	0.2	-	-	-	0.5
TOTAL	1.4	4.2	3.4	21.1	9.7	9.6	8.0	7.3	6.3	5.5	4.0	3.7	15.8	100.0
STATE														
U.S. No. 1 ^{1/}	-	-	-	17.6	6.6	6.8	5.6	5.0	4.2	3.9	3.2	2.9	11.8	67.6
Processing Grade (1 1/2" min.)	1.7	4.8	3.6	3.9	1.6	1.5	1.4	1.2	1.5	1.1	1.0	0.9	7.1	31.3
Other	-	0.1	0.1	0.3	-	0.1	0.1	0.1	-	-	-	0.1	0.2	1.1
TOTAL	1.7	4.9	3.7	21.8	8.2	8.4	7.1	6.3	5.7	5.0	4.2	3.9	19.1	100.0

1/ 2" or 4-oz. minimum.

TABLE 2 -- IDAHO RUSSET POTATOES: SIZE AND GRADE -- 2001 CROP

AREA AND GRADE	1 1/2" - 1 5/8"	1 5/8" - 1 7/8"	1 7/8" - 2"	2" or 4-6 oz	6-7 oz	7-8 oz	8-9 oz	9-10 oz	10-11 oz	11-12 oz	12-13 oz	13-14 oz	14 oz and over	Total
	Percentages (%)													
SOUTHCENTRAL COUNTIES														
U.S. No. 1 ^{1/}	-	-	-	17.3	6.9	7.4	7.1	5.9	6.6	5.8	5.0	3.8	17.2	83.0
Processing Grade (1 1/2" min.)	1.6	4.2	2.7	1.0	0.4	0.2	0.4	0.3	0.4	0.3	0.2	0.3	4.4	16.4
Other	-	0.1	-	0.1	-	0.1	0.1	-	-	-	-	0.1	0.1	0.6
TOTAL	1.6	4.3	2.7	18.4	7.3	7.7	7.6	6.2	7.0	6.1	5.2	4.2	21.7	100.0
EASTERN COUNTIES														
U.S. No. 1 ^{1/}	-	-	-	22.2	8.3	7.6	6.3	6.0	4.9	4.4	3.0	3.4	13.9	80.0
Processing Grade (1 1/2" min.)	1.7	5.3	3.5	1.0	0.4	0.5	0.4	0.5	0.6	0.4	0.3	0.3	4.5	19.4
Other	-	0.1	-	0.1	0.1	-	-	0.1	-	-	-	-	0.2	0.6
TOTAL	1.7	5.4	3.5	23.3	8.8	8.1	6.7	6.6	5.5	4.8	3.3	3.7	18.6	100.0
EASTERN SEED COUNTIES														
U.S. No. 1 ^{1/}	-	-	-	25.5	8.6	7.3	6.6	4.7	5.3	3.2	3.3	1.3	9.9	75.7
Processing Grade (1 1/2" min.)	1.8	5.6	3.6	1.3	0.2	0.2	0.2	0.4	0.5	0.5	0.3	0.7	7.6	22.9
Other	0.1	0.2	0.2	0.2	0.2	-	0.1	-	0.1	0.1	-	-	0.2	1.4
TOTAL	1.9	5.8	3.8	27.0	9.0	7.5	6.9	5.1	5.9	3.8	3.6	2.0	17.7	100.0
TOTAL OTHER COUNTIES														
U.S. No. 1 ^{1/}	-	-	-	20.7	7.7	7.5	6.8	5.8	5.7	4.8	4.0	3.3	14.4	80.7
Processing Grade (1 1/2" min.)	1.6	4.9	3.2	1.0	0.4	0.3	0.3	0.4	0.5	0.4	0.3	0.4	4.9	18.6
Other	-	0.1	0.1	0.1	0.1	0.1	0.1	-	-	-	-	-	0.1	0.7
TOTAL	1.6	5.0	3.3	21.8	8.2	7.9	7.2	6.2	6.2	5.2	4.3	3.7	19.4	100.0
10 SOUTHWEST COUNTIES														
U.S. No. 1 ^{1/}	-	-	-	20.1	9.0	7.7	7.4	6.5	4.5	4.9	3.6	4.1	17.9	85.7
Processing Grade (1 1/2" min.)	0.9	3.2	2.5	0.4	0.5	0.7	0.3	0.8	0.4	0.5	0.3	0.5	2.7	13.7
Other	-	-	-	0.1	-	0.1	0.1	0.3	-	-	-	-	-	0.6
TOTAL	0.9	3.2	2.5	20.6	9.5	8.5	7.8	7.6	4.9	5.4	3.9	4.6	20.6	100.0
STATE														
U.S. No. 1 ^{1/}	-	-	-	20.6	7.8	7.5	6.8	5.9	5.6	4.8	4.0	3.4	14.7	81.1
Processing Grade (1 1/2" min.)	1.6	4.8	3.2	1.0	0.4	0.3	0.4	0.4	0.5	0.4	0.3	0.4	4.7	18.4
Other	-	0.1	-	0.1	0.1	-	0.1	-	-	-	-	-	0.1	0.5
TOTAL	1.6	4.9	3.2	21.7	8.3	7.8	7.3	6.3	6.1	5.2	4.3	3.8	19.5	100.0

1/ 2" or 4-oz. minimum.

**TABLE 3 - IDAHO ALL POTATOES: AVERAGE NUMBER OF TUBERS PER HILL & HILLS PER ACRE
2001 & 2002 CROPS**

AREA	NUMBER OF SAMPLES		AVERAGE NUMBER OF TUBERS PER HILL		AVERAGE NUMBER OF HILLS PER ACRE	
	2001	2002	2001	2002	2001	2002
Southwest	39	34	9.0	8.6	12,314	13,117
Southcentral	81	79	8.6	8.4	12,655	12,655
Eastern	109	144	7.7	7.7	12,176	12,162
Seed Co.'s	45	35	8.3	7.1	10,983	12,693
STATE	274	292	8.2	7.9	12,132	12,393

TABLE 4 -IDAHO ALL POTATOES: QUANTITY LEFT IN FIELD AFTER HARVEST - 2001 & 2002 CROPS

AREA	2001 CROP		2002 CROP	
	NUMBER OF SAMPLES	CWT. PER ACRE	NUMBER OF SAMPLES	CWT. PER ACRE
Southwest	9	19	9	16
Southcentral	19	34	17	24
Eastern	31	26	36	29
Seed Co.'s	9	32	10	23
STATE	68	32	72	27

TABLE 5 -SELECTED STATES LONG POTATOES (RUSSET & SHEPODY) - 2002 CROP

AREA AND SIZE	11/2" - 15/8"	15/8" - 17/8"	17/8" - 2"	2"or 4-6	6-7 oz	7-8 oz	8-9 oz	9-10 oz	10-11 oz	11-12 oz	12-13 oz	13-14 oz	14 oz and over	Total
ID ^{1/} MN ND OR WA WI	Inches				Ounces									
	Percentages (%)													
	1.7	4.9	3.7	21.8	8.2	8.4	7.1	6.3	5.7	5.0	4.2	3.9	19.1	100.0
	1.8	9.3	4.0	24.8	12.4	11.0	7.8	6.9	5.6	4.3	2.8	3.3	6.0	100.0
	1.3	6.1	4.1	23.5	11.3	9.5	9.1	6.1	7.6	4.3	3.7	2.8	10.6	100.0
	1.0	3.2	2.4	18.3	8.8	8.6	7.3	8.1	6.4	5.3	5.2	4.5	20.9	100.0
	1.2	4.3	3.5	23.1	9.6	9.7	8.7	6.8	5.7	5.0	4.1	3.7	14.6	100.0
	3.6	8.1	7.0	32.9	11.9	9.0	7.7	5.2	4.3	3.3	2.5	1.4	3.1	100.0

1/ Russet potatoes only.

TABLE 6 - SELECTED STATES GRADING CATEGORIES - 2002 CROP ^{1/}

AREA AND GRADE BY TYPE	U.S. NO. 1 2 INCH MINIMUM	U.S. NO. 2 OR PROCESSING USABLE 1½ INCH MINIMUM	CULL	TOTAL
Percentages (%)				
LONG POTATOES				
ID ^{2/}	67.6	31.3	1.1	100.0
ME ^{3/}	76.0	17.0	7.0	100.0
MN	74.3	22.5	3.2	100.0
ND	78.3	18.9	2.8	100.0
OR	76.0	23.3	0.7	100.0
WA	72.0	26.5	1.5	100.0
WI ^{4/}	69.2	15.2	15.6	100.0

1/ Gross yield basis. 2/ Russet potatoes only. 3/ Percent of net yield - adjusted for field loss. 4/ 1 7/8 in. minimum for No. 2's Culls include potatoes less than 1 7/8 in. but greater than or equal to 1 1/2 in.